

Notice of Allowability

Application No.

10/539,206

Applicant(s)

WILLIAMS ET AL.

Examiner

Jerry Martin Blevins

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed September 10, 2007.
2. ☒ The allowed claim(s) is/are 1-27 and 29-37.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 10/26/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 9, filed September 10, 2007, with respect to claims 1-27 and 29-36 have been fully considered and are persuasive. The rejection of claims 1-7, 9-21, 23, 24, and 30-36 and the objection to claims 8, 22, 25-27, and 29 have been withdrawn.

Allowable Subject Matter

Claims 1-27 and 29-37 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 1, 8, 22, and 25, the prior art, as best exemplified by US 2006/0263022 to Han, teaches a preform for a photonic bandgap optical fiber waveguide (paragraphs 6, 24, 74, and 82-84) comprising a stack of parallel, elongate primary elements (Figures 3E and 3F, elements 130) and elongate secondary elements (132), in which, in the transverse cross section, the primary elements have a largest external dimension (diameter) and groups of primary elements define first interstitial regions (periodic triangular grouping of three primary elements), in at least some of which there is or are one or more secondary elements having a largest external dimension (diameter) which is less than one third of the size of each of the largest external dimensions of the surrounding primary elements (Figures 3E and 3F).

However, Han, alone or in combination with the prior art, fails to teach or render obvious

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that the primary elements are non-tessellating. Rather, Han teaches that the primary elements form a mosaic patterning, as evidenced in Figures 1-3 and 7-9. Furthermore, while Han teaches that at least a portion of the perform comprises a periodic arrangement of primary and secondary elements (triangular lattice of 3 primary and 3 secondary elements) having a first characteristic pitch (the distance between two subsequent lattices), a second characteristic pitch (the distance between two subsequent primary elements 130), and a third characteristic pitch (the distance between two subsequent secondary elements 132), wherein the second and third characteristic pitches are the same (due to the equidistant patterning of primary and secondary elements), as shown in Figure 3F, Han alone or in combination with the prior art, fails to teach or render obvious that the third characteristic pitch is larger than the second characteristic pitch. Rather, Han teaches that the second and third characteristic pitches are the same, as articulated directly above. Also, Han, alone or in combination with the prior art, fails to teach or render obvious that the primary and secondary elongate elements are arranged around a further parallel elongate element, thereby forming a plurality of second interstitial regions between an outer periphery of the further elongate element and the arrangement of first and second elongate elements. Finally, Han, alone or in combination with the prior art, fails to teach or render obvious that the arrangement of primary and secondary elongate elements are enclosed by a large diameter capillary, thereby forming a plurality of outer interstitial regions between the inner periphery of the large diameter capillary and the arrangement of primary and secondary elements.

Claims 2-7, 9-21, 23, 24, and 29-37 are allowed due to dependence from claim 1.

Claims 26 and 27 are allowed due to dependence from claim 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

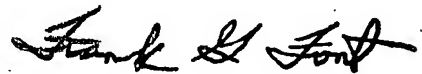
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Martin Blevins whose telephone number is 571-272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMB



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800